

Date: Fri, 22 Jul 94 04:30:33 PDT  
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>  
Errors-To: Ham-Space-Errors@UCSD.Edu  
Reply-To: Ham-Space@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Space Digest V94 #201  
To: Ham-Space

Ham-Space Digest                      Fri, 22 Jul 94                      Volume 94 : Issue    201

Today's Topics:

                    Ham-Space Digest V94 #199  
                            KLM vs. M2 antennas  
                                    LES9  
            Lunar gravitational attraction toward satellites?  
                    SAREX Keps/Entry Plasma Trail  
            Two-Line Orbital Element Set:    Space Shuttle

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>  
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 21 Jul 94 23:02:18 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Ham-Space Digest V94 #199  
To: ham-space@ucsd.edu

>As to there been "very little for the Mac," I personally have about 12 meg of  
>ham software for the Mac covering everything from Sats, DXing, TCP/IP, AX25  
>Packet, Grayline etc etc. One things for sure, the vast majority of it is a lot  
>better written than most Ham PC software I've ever seen. If anyone is  
>interested I'd be more than happy to send you a list.

>Sean.

Being a mac user interested in getting into sats and just new on Internet,  
I am interested by your list. And if you could point out some of the sites  
where I could FTP the packages, that would be of great help. Thank you very  
much for this.

Francois

Francois Locqueville : [flocq@dialup.francenet.fr](mailto:flocq@dialup.francenet.fr)

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Date: Thu, 21 Jul 94 07:47:00 -0500  
From: [news.delphi.com!usenet@uunet.uu.net](mailto:news.delphi.com!usenet@uunet.uu.net)  
Subject: KLM vs. M2 antennas  
To: [ham-space@ucsd.edu](mailto:ham-space@ucsd.edu)

My experience was that the Cushcraft AOP-1 set stayed on my roof for about a week before I turned around and bought the KLM 22-ele 2M and 40-ele 70cm antennae, as well as their fiberglass crossboom. I have to agree with Gary and others who say to do it right the first time

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Date: Wed, 20 Jul 94 18:41:23 GMT  
From: [paperboy.ids.net!usenet@uunet.uu.net](mailto:paperboy.ids.net!usenet@uunet.uu.net)  
Subject: LES9  
To: [ham-space@ucsd.edu](mailto:ham-space@ucsd.edu)

LES 9 was built by MIT's Lincoln Labs (hence the designation Lincoln Experimental Satellite). It was launched on March 15, 1976 on a Titan IIIC launch vehicle. Weight was about 454 kgs. It was placed at 8.6 degrees west Longitude in an inclined orbit. International designation was 1976 23B, and NORAD # 8747.

I don't have any information about the satellite's mission (other than the generic communications research and experiments) or how long it operated. LES-9 was launched with its sister satellite LES-8 on the same mission.

I'm not absolutely certain (this is from memory) but I believe that the satellites were nuclear powered.

Philip Chien KC4YER

In Article <[jbf.774717153@melpar](mailto:jbf.774717153@melpar)>  
[jbf@syseng1.melpar.esys.com](mailto:jbf@syseng1.melpar.esys.com) (J. Bruce Farquhar) writes:  
>Anybody know the location of a satellite known as LES9? I believe it  
>is a geosynchronous bird.  
>  
>  
>

>Bruce Farquhar | "The opinions expressed are mine; nobody  
>jfarquhar@melpar.esys.com| else would claim them!

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Date: Thu, 21 Jul 1994 13:20:46 GMT  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!  
newsxfer.itd.umich.edu!news1.oakland.edu!rcsuna.gmr.com!kocrsv01!  
news@network.ucsd.edu  
Subject: Lunar gravitational attraction toward satellites?  
To: ham-space@ucsd.edu

In article <Ct79KF.78q@wang.com> dbushong@wang.com (Dave Bushong) writes:

>  
>I received the following two questions and have no clue what the  
>answers are. Would anyone care to offer an opinion?  
>  
>1. Does the moon's gravitational attraction exert enough force  
> on geosynchronous satellites to cause their position to require  
> adjustments?

Yes. Not much, but some. The solar wind and light pressure also "blow"  
satellites around a bit. The amount of maneuvering fuel is the prime limit  
to the lifetime of a geosynchronous satellite.

>2. Is there a laboratory instrument that shows/measures the attraction  
> force between objects? If so, how does it work?

Yes. It's called a spring scale. It works by measuring the compression  
or stretching of a spring. You probably have one in your bathroom.

Seriously, any instrument that measures gravitational forces is some kind  
of spring scale. Most work by indicating the deflection caused by the  
weight of a known mass. Some are fancier, measuring the electrical  
current required to cause a magnetic field to counteract the deflection.

=====  
Alan Anderson || If they put a bunch of cattle in orbit,  
(Ham Radio WB9RUF) || would it be the herd shot 'round the world?  
My views may not necessarily be those of Delco Electronics or its management.

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Date: Thu, 21 Jul 1994 07:14:36 MDT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
newsxfer.itd.umich.edu!nntp.cs.ubc.ca!alberta!ve6mgs!usenet@network.ucsd.edu  
Subject: SAREX Keps/Entry Plasma Trail  
To: ham-space@ucsd.edu

SB SAREX @ AMSAT \$STS-65.019  
SAREX Keps/Plasma Trail

#### Plasma Trail/Shuttle Reentry

People in the southern U.S. should have a very good view of the Space Shuttle entry plasma trail Friday morning. The prime deorbit opportunity is still on rev 219, which will land at KSC about 10 minutes after sunrise there, and pass over Houston, over College Station and Huntsville at 10:31 UTC, an hour before local sunrise. That should give a plasma arc across the sky with a peak of about 15 deg as seen from Houston. Shuttle landing is planned for 10:39 UTC at the Kennedy Space Center. Keep your eyes peeled!

[info provided by Gil Carman, WA5NOM]

#### SAREX Keplerian Elements

The following is the official SAREX orbital elements for today. These were generated by Ron Parise, WA4SIR, at the Goddard Space Flight Center, and adjusted to improve the drag term by Gil Carman, WA5NOM, of the Johnson Space Center.

STS-65

```
1 23173U 94039A 94202.29299650 0.00060047 00000-0 23046-3 0 457
2 23173 28.4656 273.5071 0003567 85.8991 274.2028 15.91315128 2020
```

Satellite: STS-65

Catalog number: 23173

Epoch time: 94202.29299650 (21 JUL 94 07:01:54.90 UTC)

Element set: GSFC-045a

Inclination: 28.4656 deg

RA of node: 273.5071 deg Space Shuttle Flight STS-65

Eccentricity: 0.0003567 Keplerian Elements

Arg of perigee: 85.8991 deg

Mean anomaly: 274.2028 deg

Mean motion: 15.91315128 rev/day Semi-major Axis: 6676.7339 Km

Decay rate: 6.0047E-04 rev/day\*2 Apogee Alt: 300.73 Km

Epoch rev: 202 Perigee Alt: 295.96 Km

NOTE - This element set is based on NORAD element set # 045.

The spacecraft has been propagated to the next ascending node, and the orbit number has been adjusted to bring it into agreement with the NASA numbering convention.

Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group

/EX

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Date: Wed, 20 Jul 1994 21:10:06 GMT  
From: iris.mbvlab.wpafb.af.mil!blackbird.afit.af.mil!tkelso@uunet.uu.net  
Subject: Two-Line Orbital Element Set: Space Shuttle  
To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are carried on the Celestial BBS, (513) \*253-9767\*, and are updated daily (when possible). Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using 8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation and software are also available via anonymous ftp from archive.afit.af.mil (129.92.1.66) in the directory pub/space.

STS 65

1 23173U 94039A 94200.91666667 .00002073 00000-0 46300-5 0 411  
2 23173 28.4671 283.8025 0003613 71.6908 307.1635 15.91200958 1790

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Dr TS Kelso Assistant Professor of Space Operations  
tkelso@afit.af.mil Air Force Institute of Technology

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Date: Wed, 20 Jul 1994 09:55:31 -0400  
From: ftpbox!mothost!lmpsbbs!NewsWatcher!user@uunet.uu.net  
To: ham-space@ucsd.edu

References <n7ryw.23.001735AB@teleport.com>,  
<a229aa-180794102803@hofbrau.sps.mot.com>, <wrothCt6wvC.8ro@netcom.com>er  
Subject : Re: Portable 9600 baud PacSat

In article <wrothCt6wvC.8ro@netcom.com>, wroth@netcom.com (Wayne D Roth)  
wrote:

> Chris Terwilliger (a229aa@email.sps.mot.com) wrote:  
> : In article <n7ryw.23.001735AB@teleport.com>, n7ryw@teleport.com (William  
> : Roth) wrote:  
>  
> : > Avoid a Mac like the plague for anything related to Amateur Radio.  
>

> : This is a really stupid thing to say...typical bias from a "PC" clone...  
> : Terry Stader posts a list every month to this newsgroup listing amateur  
> : radio software available for the Mac. There is lots of software available  
> : and a lot more on the way.  
>  
> : --  
> : \* Chris Terwilliger, AA7WD a229aa@email.sps.mot.com \*  
> : \* Motorola AA7WD@N7MRP.AZ.USA.NA \*  
> : \* Phoenix Corporate Research Labs those who forget the past \*  
> : \* 2100 E. Elliot Rd. EL508 are condemned to repeat it \*  
> : \* Tempe, AZ 85284 - George Santayana \*  
>  
> Not for communication with the pacsats there isn't, or do you know of a  
> mac based package that replaces the pb/pg suite? The only way I know  
> that you can work the pacsats using broadcast/ftl0 protocol with a mac is  
> with an IBM PC emulator.  
> --  
> wroth@netcom.com

The PowerPC chip has invaded both the DOS and MAC sides of the fray to provide complete and total interchangeability. It doesn't matter any more which hardware manufacturer you buy from, as long as there is a PPC inside (sorry, Intel!). Software, both commercial and amateur, now will finally have to stand on its own merits, not those of the hardware or OS on which it is running.

Before either or both of you get upset, let me explain that I am a dual user. My terrible old MacSE does support both IBM and Mac disk formats, so I can take IBM HD software diskettes and translate them back to DD, which the precious blue PS/2 line can't do. When I network the two machines using MacLink, I can even convert 5 1/4 disks to 3 1/2 of any density in either OS format. The disadvantage is that I have to have two separate and distinct machines on my desk right now, which means I have precious few remaining square inches of desktop. I'll finally be able to reclaim some of that real estate if our department budget and specifically my PowerMac gets approved and fully funded!

We should also realize that most PC users don't/can't access Mac BBSs because their machines and telecom freeware libraries don't support the many functions available (and required) for Mac BBS users. Try First Class if you're serious about wanting a decent screen interface to a BBS; ANSI graphics just don't cut it in the Mac world.

--  
Karl Beckman, P.E. < If this English language is so  
>  
Motorola LMPS.RNSG.Analog Data < precise, why do you drive on a  
>

(Square waves & round corners) < parkway and park on a driveway?  
>

The statements and opinions expressed here are not those of Motorola Inc.  
Amateur radio WA8NVW NavyMARS NNN0VBH @  
NOGBN.NOASI

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End of Ham-Space Digest V94 #201  
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